

U.S. Patent Application for:

**METHOD AND SYSTEM FOR IDENTIFYING AND DISTINGUISHING
WORDS CONTAINED WITHIN AN ELECTRONIC MESSAGE IN ORDER
TO CONVEY SIGNIFICANCE**

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BACKGROUND OF THE INVENTION

1. Field of the Invention.

The present invention generally relates to electronic message management and processing, and particularly to methods and systems for creating and reading electronic
5 messages.

2. Description of Related Art.

Currently, e-mail users may receive large numbers of e-mail messages each day. Those using e-mail in the workplace and those e-mail users considered critical to a
10 project or team are particularly inundated with e-mail. In addition, many of the received messages may be addressed to more than one individual, wherein the author sends the exact same message to more than one recipient at the same time. In many situations, the author may intend that certain parts of the message body are more significant or
15 important to some of the recipients than they are to the others. For example, an author may send a message to ten people (ten people on the "To:" line of the message) to notify them all of the existence of a particular issue and in the same message the author may ask specific questions of two of them and assign actions (i.e. "to dos") to two others. The problem is that all ten of the recipients must take the time to read the entire
20 message to see which areas are important to them, even if only a small section is applicable to them. Without reading the entire message, each recipient cannot easily determine which portions they need to pay attention to and which portions are unimportant to them. In their haste to catch up on reading many e-mail messages each

day, they can easily overlook a question or action that the sender of the message wrote in the message specifically for them and thereby cause delays in progress of the situation.

A simple solution to this problem may be obtained by manually flagging or making distinct names and terms within messages using fonts and color. However, this would require significantly more time on the part of the e-mail author. In addition, this would not help the e-mail reader who receives a message that has not been generated by an author to include these markings.

Other e-mail processing approaches may sort e-mail automatically to help alleviate the global problem of people trying to efficiently process all of the e-mail that they receive. For example, the recipient users may register a set of words that they want to be used in the lookup. Then, when e-mail messages are received in their in-box, they are scanned for occurrences of those words. Based on the frequency that those words occur in the messages, the messages are sorted into different categories for the recipient. However, this approach does not afford the user (author or recipient) the ability to customize the appearance and emphasis given particular words when e-mail is created as well as when it is read by a recipient.

Although the problems described above are most commonly found in the use of e-mail as it is the most ubiquitous form of electronic messaging, these problems are not exclusive to e-mail. They are equally applicable to any other form of electronic messaging. Some examples include various forms of online instant messaging (e.g. Lotus Sametime™, AOL Instant Messenger™, etc.) as well as messaging services for handheld devices (e.g. short messaging system (SMS) for cellular phones and pagers and others).

Accordingly, there is a need for a system and method within electronic messaging systems and programs that will minimize the time required to read electronic messages by allowing certain words that are contained within the electronic message to be quickly and easily identified and distinguished within the electronic message from the rest of the words in the message. There is also a need for such systems and methods to be conveniently employed when the electronic message is created as well as when it is read. The present invention meets all these needs and is generally applicable to all forms of electronic messaging as described above.

SUMMARY OF THE INVENTION

To overcome the limitations in the prior art described above, and to overcome other limitations that will become apparent upon reading and understanding the present specification, the present invention discloses a method, apparatus and article of manufacture for identifying and distinguishing words contained within an electronic message in order to convey significance.

The invention discloses an method, apparatus and article of manufacture for identifying and distinguishing words contained within an electronic message, including the steps of scanning and comparing message terms in an electronic message to significant terms from an online registry to identify any matched significant message terms and making distinct the matched significant message term to indicate significance to a reader.

A typical method of the present invention comprises the steps of collecting significant terms, locating those terms inside an electronic message, and, within the message itself, distinguishing the significant terms from the other "non-significant" terms so that they can be quickly and easily identified by the reader.

5 The system and method can be available at the time the message is created by the author and/or at the time the message is read by the recipient, and the words are ones that either the author or recipient can determine should convey significance.

10 The present invention is different from the previously described sorting approach in a number of ways. First, the present invention can be used both at the source by the electronic message author and by the recipient. The author can choose words to make significant and they will get the attention of the recipient in the way that the author specifies. With the other sorting approach, the recipient chooses and registers the words that they think are important to find automatically. The terms registered by the recipient might not be the same as the terms that the author would consider
15 important. Therefore, the present invention is more flexible than the other technology because it can be used both at the creation of the electronic message and at its reception. In addition, the other technology merely sorts the electronic message into categories (e.g., in a folder). It does not alter the electronic message appearance to make it easier to read. The recipient must still open each message and read it through to find the areas
20 that contain the words that the user registered as significant. In the present invention, those words have an indication (for example, bold font) within the message itself so that the recipient can easily spot them as they scan the text.

1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477 2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2500 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 2517 2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528 2529 2530 2531 2532 2533 2534 2535 2536 2537 2538 2539 2540 2541 2542 2543 2544 2545 2546 2547 2548 2549 2550 2551 2552 2553 2554 2555 2556 2557 2558 2559 2560 2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2572 2573 2574 2575 2576 2577 2578 2579 2580 2581 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2658 2659 2660 2661 2662 2663 2664 2665 2666 2667 2668 2669 2670 2671 2672 2673 2674 2675 2676 2677 2678 2679 2680 2681 2682 2683 2684 2685 2686 2687 2688 2689 2690 2691 2692 2693 2694 2695 2696 2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2712 2713 2714 2715 2716 2717 2718 2719 2720 2721 2722 2723 2724 2725 2726 2727 2728 2729 2730 2731 2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742 2743 2744 2745 2746 2747 2748 2749 2750 2751 2752 2753 2754 2755 2756 2757 2758 2759 2760 2761 2762 2763 2764 2

FIG. 1 schematically illustrates the environment of a typical embodiment of the present invention;

FIG. 3 is a flowchart that illustrates the logic performed by the invention for an

10 electronic message recipient; and

FIG. 4 illustrates a typical apparatus of the invention.

In the following description of the preferred embodiment, reference is made to the accompanying drawings which form a part hereof, and in which is shown by way of illustration a specific embodiment in which the invention may be practiced. It is to be understood that other embodiments may be utilized and structural changes may be made without departing from the scope of the present invention.

20 Overview

Authors of electronic messages can easily find terms in their messages which they want to call to the attention of particular electronic message recipients and

distinguish those terms so that they are readily visible to those particular recipients. This reduces the likelihood of a recipient overlooking something in the message that the author wants them to read. Individual recipients of the electronic messages can easily find those terms in the message that are important to each of them. This reduces the time each person spends reading their electronic message, as they can scan each message and easily find the portions that are important to them.

Throughout the following detailed description the following terms shall be used, defined as follows.

“Significant” is defined as those words (which includes proper names, or words invented by the user of the invention) which the user considers would be important to read if they are contained in that user’s electronic messages. For example, a manager would consider the names of his employees to be significant for electronic messages that he sends or receives.

“Distinct” and “distinguished” are also significant terms. A term contained in an electronic message is “distinct” if it has a quality that makes it stand out from the other terms in the electronic message, and it is said be “distinguished” from the rest of the text. For example, if most of the text in an electronic message is in normal font and some terms are in bold font, those terms that are in bold font are “distinct” or “distinguished” from the rest of the text. Ways in which terms can be made distinct include but are not limited to using different fonts, using different colors, and having an image displayed next to them.

With the present invention, electronic message authors may define a set of terms (which may be words, proper names, invented words, etc.) that they want to be registered as significant terms. When finished composing an electronic message, the authors invoke a process which scans the electronic message and locates the registered terms in the body of the message. For each occurrence of a registered term, the process asks the author whether it should make that occurrence to appear distinct within the message.

In addition, electronic message recipients may also define a set of terms (which may also be words, proper names, invented words, etc.) that they want to be registered as significant terms. When they open an electronic message to be read, the recipients invoke a process which scans the electronic message, locates the registered terms in the body of the message, and makes the occurrences appear distinct within the message.

The set of terms used may be the same or different for a given user when the user is a recipient or an author of electronic message.

Hardware Environment

FIG. 1 illustrates an exemplary computer system 100 used to implement a multiple browser and editor. The computer 102 comprises a processor 104 and a memory 106, such as random access memory (RAM). The computer 102 is operatively coupled to a display 122, which presents images to the user. The computer 102 may be coupled to other devices, such as a keyboard 114, a mouse device 116, a printer, or similar I/O device. Any combination of the above components, or any number of

different components, peripherals, and other devices, may be used with the computer 102.

Generally, the user interfaces with the computer which accepts inputs and commands and presents results through a graphical user interface (GUI) module 118A and window 118B. Although the GUI module 118A is depicted as a separate module, 5 the instructions performing the GUI functions can be resident or distributed in the operating system 108, the application program 110, or implemented with special purpose memory and/or processors.

The operating system 108 and computer application program 110 are comprised 10 of instructions which, when read and executed by the computer 102, causes the computer 102 to perform the steps necessary to implement and/or use the present invention. Computer program 110 and/or operating instructions may also be tangibly embodied in memory 106 and/or provided via data communications devices, thereby making a computer program product or article of manufacture according to the 15 invention. As such, the terms “article of manufacture” and “computer program product” as used herein are intended to encompass a computer program accessible from any computer readable device or media. In one embodiment, instructions implementing the operating system 108, the computer program 110, and the compiler 112 are tangibly embodied in a computer-readable medium, e.g., data storage device 120, such as one or 20 more fixed or removable data storage devices, a zip drive, floppy disc drive 124, hard drive, CD-ROM drive, tape drive, or other medium.

The computer system 100 also uses a network connection 126 (such as the Internet or a local area network) to facilitate connection to a server 128 and/or other computer systems 130. As will be apparent to those skilled in the art, the components of the invention (as will be detailed hereafter in reference to FIG. 4) may be implemented
5 on an individual computer system 100 or across a network of servers 128 and computer systems 130.

Although other implementations are easily obtained, in a typical embodiment the present invention is a component of the computer application program 110, and particularly an application program 110 directed toward word processing and/or
10 electronic message.

The computer 102 may also implement a compiler 112 which allows an application program 110 written in a programming language such as COBOL, C++, FORTRAN, or other language to be translated into processor 104 readable code. After completion, the application program 110 accesses and manipulates data stored in the
15 memory 106 of the computer 102 using the relationships and logic that was generated using the compiler 112.

Of course, those skilled in the art will recognize many modifications may be made to this configuration without departing from the scope of the present invention. In addition, those skilled in the art will recognize that any combination of the above
20 components, or any number of different components, including different computers, computer programs, peripherals, and other devices, may be used to implement the present invention, so long as similar functions are performed thereby.

Logic of the Invention

FIGS. 2 and 3 are flow charts illustrating preferred embodiments of the invention described above, one for use by an electronic message author and the other for use by an electronic message recipient.

FIG. 2 is a flowchart 200 that illustrates the logic performed by the invention for an electronic message author. First, significant terms are collected from a user and stored in an online registry at block 202. A composed message is scanned and the terms contained are compared with the terms in the registry at block 204. At block 206, if no match is found, the process continues scanning at block 204, but if a match is found, the process continues to block 208. At block 208, the process asks the user whether to flag or make distinct the matched term. If the response is no, the process returns to block 204 and then continues scanning. However, if the response is yes, the term is made distinct at block 210. Next, the process checks whether the end of the message has been reached at block 212 and if not, continues scanning to a next match at block 204. If the end of the message has been reached, message is displayed at block 214 and the process ends.

FIG. 3 is a flowchart 300 that illustrates the logic performed by the invention for an electronic message recipient. Here also, the process begins with significant terms collected from a user and stored in an online registry at block 302. A received message is scanned and the terms contained are compared with the terms in the registry at block 304. At block 306, if no match is found, the process continues scanning at block 304. If a match is found, the process continues to block 308, where the term is made distinct. Next,

the process checks whether the end of the message has been reached at block 310 and if not, continues scanning to a next match at block 304. If the end of the message has been reached, the message is displayed at block 312 and the process ends.

The significant terms may be selected and made distinct in any manner, however, they are typically selected based upon profiles of an intended reader and/or the author. An example of a profile of the intended reader may be defined as "project team". In this case, significant terms and settings will be selected and applied to a message based upon knowledge of the group - terms important to them, as well as specific ways of showing distinct terms. An author profile may include significant terms and settings that are applied when it is known who the author of the message is. In the foregoing example, a message from a member of "project team" may be processed using particular significant terms and settings. These significant terms and settings may be the same as for the reader profile. Reader profiles are applied when the message is processed by an author and author profiles are applied when the message is processed by a message recipient.

Typical Embodiments

FIG. 4 illustrates a typical apparatus 400 of the invention which may be embodied in a single electronic message application or across different component hardware and software as previously described. The apparatus comprises a term collection module 402 which collects and stores the significant terms 404 in an online registry 406. The message processor 408 scans a message 410 (either received or authored by the user) and compares the message terms 412 to the significant terms 404

to identify any matched significant message terms 414 which are in both the message 410 and the registry 406. A message editor 416 then makes the matched significant message term 414 in the message distinct in some manner. If the user authored the message, they may be queried whether to proceed with making the matched terms distinct at each

5 identified instance.

The manner in which matched significant message term 414 may be made distinct is not limited. Any alteration which allows a reader to readily identify the special significance of the term is sufficient. Some examples include alterations in the text font, color or effects (such as making text bold or underlined). Alternately, objects may be

10 inserted in the message to make a term distinct, such as images, icons, videos, sounds or links. Of course, combinations of these techniques may also be employed.

The processing and editing of the message may be controlled through various user settings. One technique would be to categorize the significant terms and have the manner in which the matched terms are made distinct depend upon the category. For

15 example, names of people from one particular organization (under a particular profile, for example) may be made bold and blue, while those from another organization (under the same or another profile) may be made bold and red. Of course, the "categories" can be as small as only a single word. Multiple categories of terms and user settings may be used in forming a particular reader or author profile.

20 The user settings may also control the processing of the message in determining which terms are significant and how they are to be altered. For example, the processor may first determine whom the message is being sent to and use those names as a

terms and names (e.g. "XYZ product", "Install Team", "Human Resources", etc.) and key words used in user's particular field (e.g. "XML", "HTML", etc. for an internet programmer). When the user is done in this dialog, a registry of these terms is built and kept and stored for the user, on the user's machine or a server, for example.

- 5 The program may also provide an option on an edit menu named "Flag key names/terms". This option would be available when the user is composing a new electronic message. This option opens a dialog similar to a "spell-check" window where the user can indicate that the program should scan through the electronic message and make distinct any term that matches any of the key names/terms that are in the registry
- 10 collected earlier, or flag any names of people in the "To:" list that also appear in the body of the message. When a key term is flagged, the user has the option in the dialog of specifying how to indicate that the term is significant. For example, the program may make the term a different font, make the term a different color, add an image next to the term, or attach a sound file on the term. Of course, the manner of making a term
- 15 distinct may also be automated as previously described.

- At the end of the process, the result is an electronic message that has terms that are in different fonts, colors, etc. to signify to the recipients those places that they should pay attention. For example, key names from the "To:" list are flagged in bright bold red at places where they have actions to do; different colors are used for some people and
- 20 bold font is used for status, install and build. In the following example, the author chooses not to make bold every occurrence of "install" and "build"; just the ones where

he thought it would make a difference:

To: Eva Jones, Alan Harmon, Elizabeth Grayson, John Hayes
From: Clark Kent
Subject: To-Dos and brainstorming

- Please send me **status** on the items below by 11:00, 2:00, 4:00, and 6:00 tomorrow by electronic message Please include defect number and what happened with it. I'm leaving at 10:30, after 2 meetings and won't have time to stop by and get status. Call me for emergencies.

- We need to have people on call this weekend; please work something out between you; someone will need to check throughout the weekend to make sure further defects are covered and closed.

Elizabeth and **Eva**: using the Thursday night build, can you test the following defects: 34509, 116916, 116510

Eva: Verify old defects, close. Check with John Hayes which ones were already verified (116916, 116927 were new ones yesterday). Also test fix for 115236 (will need to be in weekend **build**).

John: Check for new defects, verify, and necessary changes to Eva for fixes. Finish defect 116508.

Alan: Finish defects with Solaris

Later, I think we should discuss this process, in light of the new function updating and roles involved. Perhaps we should really have an **install** rep as well as a **build** rep, since we do have a somewhat different perspective on many issues. The install team usually gets hooked in at the end of the cycle, while the build team is there from the start. A lot of these problems seem to be related to **install**.

There may even be other strategically positioned experts who could also help.

Thanks!
Clark

Example 2: For Recipients of Electronic messages

Identical to the foregoing, except that in this case the author doesn't process the message before sending. This may occur if the author has neglected to or does not have access to software implementing the invention when drafting or sending the message. It

should also be noted that even if the author has processed the message, the recipient may independently collect terms that the user deems important and process the message supplementally. Using the above example and assuming the electronic message author neglected or is unable to process the message, if the recipient is Elizabeth, she might just want to see if her name is in the message. She would see the above incoming message flagged as follows.

To: Eva Jones, Alan Harmon, Elizabeth Grayson, John Hayes
From: Clark Kent
Subject: To-Dos and brainstorming

- Please send me status on the items below by 1 1:00, 2:00, 4:00, and 6:00 tomorrow by electronic message. Please include defect number and what happened with it. I'm leaving at 10:30, after 2 meetings and won't have time to stop by and get status. Call me for emergencies.

- We need to have people on call this weekend; please work something out between you; someone will need to check throughout the weekend to make sure further defects are covered and closed.

Elizabeth and Eva: using the Thursday night build, can you test the following defects: 34509, 116916, 116510.

Eva: Verify old defects, close. Check with John Hayes which ones were already verified (116916, 116927 were new ones yesterday). Also, test fix for 115236 (will need to be in weekend build).

John: Check for new defects, verify, and necessary changes to Eva for fixes. Finish defect 116508.

Alan: Finish defects with Solaris

Later, I think we should discuss this process, in light of the new function updating and roles involved. Perhaps we should really have an install rep as well as a build rep, since we do have a somewhat different perspective on many issues. The install team usually gets hooked in at the end of the cycle, while the build team is there from the start. A lot of these problems seem to be related to install.

There may even be other strategically positioned experts who could also help.

Thanks!
Clark

So, when Elizabeth opens the electronic message, her eye would be drawn to the line that begins with her name immediately, and she can read that part first. This ensures that it gets her attention.

Without the present invention, an author may manually type the names of people
5 next to the sections or questions in the electronic message that the author wants to receive special attention, and then highlight the names (using different fonts or colors) to call attention to those sections. The disadvantage to this method is that it requires significant time to go to each occurrence within the message, selecting the name or words at each occurrence, and then changing the font or color to make it stand out.
10 Furthermore, there is a risk of overlooking an occurrence that should be highlighted, especially in a long electronic message. See the following example.

To: Ellen, Eric, Brian, David
From: Elizabeth
15 Subject: Question about translation practices

Hi team,

I have a question for you that came from another team. The question is if we use a tool that doesn't generate table of contents automatically, how do
20 the translators "sync up" the translation of the headings? Is there a step in the process where they compare to make sure they've translated the same English heading text into the same language text? **Ellen or Eric**, do you know how they handle this scenario?

David, from an accuracy/clarity/retrievability standpoint, I always assume
25 that it's in the best interest of the users that the text matches, so that they are ensured that they have jumped to the correct corresponding panel. The example quoted was "Choosing a controller" instead of "Selecting a controller" in the heading of the panel it links to. What are your thoughts on this issue? If you think it's something that could cause a lot of customer
30 problems, then we might need to put a process in place to ensure that they always match exactly. Do you know which team could handle this, Standards or Procedures? Could you call a meeting with the appropriate team to discuss it?

Thanks!
Elizabeth

5 In the above example, the author must type the entire message, then go back and choose various fonts and colors and select the text to highlight. The advantages of the invention over this manual alternative are that the process is made faster, easier and certain. In one embodiment of the invention, the author would only have to type the original message, hit a button, and the tool would pick out the names and, depending on
10 the particular format selection, make all the names in bold font.

As previously mentioned, in another embodiment of the invention, electronic message recipients may specify key words that they want to have identified in the electronic messages that they receive when they open the messages to read them, instead of relying on the author having specified them when the author sent the message. So
15 that, if the author forgets to highlight the name of a recipient in the body of the electronic message (or doesn't have the tool available), the recipient could turn on the invention to look for and highlight her own name or certain other names or words that she's specified in a personal "dictionary" and automatically see those words easily.

For example, suppose the above message is sent to Eric, Ellen, Brian, and David
20 and the author either forgot to run the tool to flag their names or does not have the tool.

David is the head of the Standards team. With an embodiment of this invention in his electronic message program, he could have registered a set of key words that includes his name ("David"), and the terms "meeting" and "Standards", so that he can easily see his name in any messages that come in and whether there might be an issue for

him or his team and for meetings. So, when the message arrives and he opens it, the words “meeting”, “Standards” and “David” will be highlighted and he can see them easily with the items that are important for him and his team:

5 To: Ellen, Eric, Brian, David
 From: Elizabeth
 Subject: Question about translation practices

10 Hi team,
 I have a question for you that came from another team. The question is if we use a tool that doesn't generate table of contents automatically, how do the translators "sync up" the translation of the headings? Is there a step in the process where they compare to make sure they've translated the same English heading text into the same language text? Ellen or Eric, do you
15 know how they handle this scenario?
 David, from an accuracy/clarity/retrievability standpoint, I always assume that it's in the best interest of the users that the text matches, so that they are ensured that they have jumped to the correct corresponding panel. The example quoted was “Choosing a controller” instead of “Selecting a
20 controller” in the heading of the panel it links to. What are your thoughts on this issue? If you think it's something that could cause a lot of customer problems, then we might need to put a process in place to ensure that they always match exactly. Do you know which team could handle this,
25 **Standards** or Procedures? Could you call a **meeting** with the appropriate team to discuss it?

 Thanks!
 Elizabeth

30 The present invention may expand upon the functionality of a “spell checker”, known and used in many word processing applications. An example spell checker may function as follows.

1. The author composes the message.
- 35 2. The author runs spell-check tool.

3. The spell-check tool compares terms in the message against an online registry of terms (the dictionary).

4. One at a time, the spell-check tool flags those terms that the spell-check tool deems possibly misspelled terms important to the author.

5 5. When each occurrence is flagged, the author is given an opportunity to ignore or change the flagged terms.

6. At finish, the author sends the message.

The present invention extends the concept of comparing terms contained in an
10 authored message to a registry of terms, flagging those of "interest", and giving the author an opportunity to change them or otherwise modify the message.

1. The author composes the message.

2. The author runs a tool that is an embodiment of the present invention.

15 3. The tool compares terms in the message against an online registry of terms that the author has created. For example, the registry may contain names of people that the author has registered, names of people in the "To:" list of the current message, proper names of things in the author's workplace, etc.

4. One at a time, the tool may flag those terms that match ones in the registry
20 that the author has created, indicating that the author deems them significant terms.

5. At each identified match, the tool gives the author an opportunity to specify that the term be given a distinct quality (for example, a different font, or a color, or a

sound attached, or an image attached) to indicate its importance when the message is opened by the recipient. Alternately, the author may preset the processing to occur automatically, without prompting at each identified match.

6. At finish, the author sends message.

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The present invention differs from a simple spell-checker in many ways. The present invention employs a registry that the users define themselves with words that are of personal importance. A spell-checker is based on the paradigm of flagging those terms that do not match its registry and providing an option to replace terms. The present invention flags those terms that do match and allows the user to attach significance to those terms through reformatting the terms or by appending other markers (such as sounds or images).

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Another related concept is the search feature in electronic message applications.

The search concept for the recipient of the electronic message is:

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1. The recipient receives electronic message.
2. The recipient opens the search tool.
3. The recipient specifies significant words that the recipient wants to find within the message.

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4. At each found occurrence, the recipient reads that section.

5 The present invention extends this concept in a novel way by searching through
an electronic message for any term that the user (author or recipient) has specified ahead
of time (i.e. preset) as having significance or importance for them, not just searching for
a single term that the user enters in the search tool, and by allowing the occurrences of
terms to be flagged in some way within the electronic message itself. If the author
processes the message with an embodiment of the invention, the recipient does not have
to search through the message at all; all of the important terms will be flagged with some
significance (font, color, image, sound, etc.) that is readily visible to the recipient. In
addition, the invention is not as tedious for the recipient as using a search tool. Instead
10 of having to run the search for every term that has significance for the recipient and that
they think might be in the electronic message (for example, searching for the user's
name, then searching for a product name, etc.), the recipient sets up a registry of terms at
one point in time and then only runs the invention against each electronic message.
Each occurrence is flagged (by font, color, image, sound, etc.) and the recipient can see
15 them stand out within the electronic message.

Conclusion

This concludes the description of the preferred embodiment of the invention. In
summary, the present invention comprises a method, apparatus and article of
20 manufacture for use in an electronic messaging system.

The following describes some alternative ways of accomplishing the present
invention. Those skilled in the art will recognize that different operating environments,

